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Can healthy eating be cool?

A study of Celebrities' impact on Teens' Attitudes towards Healthy Eating

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## **Abstract**

In adolescence peers become a major influence, however teenagers also look to celebrities to know what is “trending”. This study was a first step to understand if celebrities can have a positive influence in adolescents’ views of healthy food. Research was done to 13 and 14 year olds who were divided into experimental and control groups. The first observed an episode which included a scene of a celebrity eating healthily followed by a questionnaire focused on attitudes towards healthy eating. Results suggest that teens align their attitudes to be the same as the celebrity’s. Moreover, celebrities can be stronger role models than peers and this effect will be higher for teenagers who are more easily influenced. In the end, this study shows that celebrities are able to transmit healthy eating habits successfully and effectively.

**Keywords:** Adolescents; Healthy Eating; Role Models; Celebrities; TV.

## **Introduction**

According to the World Health Organization over 1.4 billion adults and 40 million children were overweight in 2008 and 2011, respectively, and worldwide obesity has doubled since 1980<sup>1</sup>. Childhood obesity grew rapidly in the last 20 years, which in turn indicates that the new generation of children has a great probability of developing serious health problems such as diabetes and depression<sup>1</sup>. Obesity is the second death cause in the world that can be prevented, being the first tobacco.

Today’s children are sedentary and undernourished<sup>2</sup> and the reality is that society has set the environment where seeing children eating “junk food” – high fat low nutrient content foods – is commonplace (Ludvigsen and Sharma, 2004). In the same study by

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<sup>1</sup> [www.who.int/mediacentre/factsheets/fs311/en/](http://www.who.int/mediacentre/factsheets/fs311/en/)

<sup>2</sup> [www.apcoi.pt/obesidade-infantil/](http://www.apcoi.pt/obesidade-infantil/)

Ludvigsen and Sharma (2004), observations during lunch time in a school cafeteria in the UK were essential to recognize that student's food choices were mostly identical among each other: high in fat, low in nutrients – including lunch boxes brought from home.

Only recently (in 2012) in Portugal, where the present study has taken place, a National Reform was implemented for the promotion of healthy eating in schools which limits the offer of poor-nutrient foods. Other schools worldwide have put similar practices into play mostly driven by Jamie Oliver's "Food Revolution"<sup>3</sup>, which reveals the importance of adopting healthy eating behaviors from a young age.

Parents and peers are important role models for children and adolescents because through them they learn to make choices about food (Basset et al, 2007; Ludvigsen and Sharma, 2004), career and aspiration (King and Multon, 1996; Lockwood and Kunda, 1997) sports activities (Mackey and La Greca, 2007) and because they are also important socialization agents (Bush et al, 2001; Chan, 2013). However, Observational Learning Theory developed by Bandura (1989), explains that a direct contact between the agent (the role model) and the "learner" (the adolescent) is not necessary for the learning to occur. In fact, studies have found celebrities, namely sport stars and entertainers, to be relevant as influencers in the choice of sport activities (Dix et al., 2010) and as socialization agents (Bush et al., 2001).

Literature reveals healthy eating to be mostly present in home meals with the family and unhealthy eating clearly related to a peer environment (Fitzgerald et al., 2013; Stead et al., 2011; Contento et al., 2004). However, there is a need for further insight into the influence of celebrities in adolescents' food choices.

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<sup>3</sup> Jamie Oliver is a renowned british Celebrity Chef and health campaigner. More information about his campaign can be found here: [www.jamieoliver.com/us/foundation/jamies-food-revolution/home](http://www.jamieoliver.com/us/foundation/jamies-food-revolution/home)

*“If you want young people to do something you have to make it cool, make it the ‘thing to do’.”*

- Neumark-Sztainer et al, 1999 (p. 4)

*Being Cool* implies understanding the several aspects that characterize teens. Although peers are an important influence, media is still the main medium for teens to find their own identity. Media provides them with several examples of who they could be and how they could behave (Lindstrom, 2004). BRAVO, a teenage Portuguese magazine, for instance, incessantly shows the current trends in fashion, make-up, music based only in what celebrities say and do. Technology has also made it possible for adolescents to easily access their favorite celebrity’s life and interests<sup>4</sup>, including what they are eating<sup>5</sup>. This paper is an attempt to understand how a celebrity with healthy habits impacts adolescents.

## **Literature Review and Hypothesis**

*Over the past decade, tween’s personal identity has shifted focus from the psychological to the physical. You are what you eat, what you wear, what you see and what you play.*

- Lindstrom, 2004 (p.201)

## **Adolescence**

Adolescence is a transitional period from childhood to adulthood, especially between the ages 13 and 18, when major physical, mental and emotional changes occur (Feldman, 2008). It is a period of new discoveries, freedom of choices and therefore gained independency. According to John’s (1999), as children reach the reflective stage

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<sup>4</sup>[www.hollywood.com/news/celebrities/23719629/celebrity-instagram-accounts-you-need-to-check-out](http://www.hollywood.com/news/celebrities/23719629/celebrity-instagram-accounts-you-need-to-check-out).

<sup>5</sup>[www.ivillage.com/celeb-instagram/3-a-539199](http://www.ivillage.com/celeb-instagram/3-a-539199)

(11-16 years old) they already have full understanding of consumption (being a consumer, making choices and brands) and the social meanings attached. Since peers become more important than parents at this age (John, 1999; Piaget, 2000), the identity shaping process will be very much influenced by the conformity to their group's expectations (Bruening et al., 2012; MacKey and La Greca, 2007) and by what is observed from the outside world (Lindstrom, 2004).

Patterns of awareness of the symbolism and social comparisons of consumption depend on the teen's age (Roper and La Niece, 2009) – 11-year old teens differ significantly from 14-year olds in what concerns food consumption motifs - and gender (Moschis and Churchill, 1978) – male teens give more importance to expressive consumption.

### **Adolescents and Healthy Eating**

Given the higher independence and power in food choices of adolescents, they show an increasing reduction in healthy eating habits (DGS, 2013). The majority of adolescents don't eat dairy, fruit and vegetables on a daily basis (Cavadini et al., 1999; Videon and Manning, 2003) and there is a general perception of both parents and children that the latter are supposed to eat unhealthy food (Ludvigsen and Sharma, 2004). This "unhealthy eaters" self-perception is consistent with their preference for "bad food" (Stevenson et al., 2007).

Although adolescents show a relatively good knowledge about what is healthy (Stevenson et al., 2007), they still tend to make unhealthy food choices (Cavadini et al., 1999; Story et al., 2002; Ludvigsen and Sharma, 2004) and don't consider future consequences associated with these choices (Stevenson et al., 2007; Neumark-Sztainer, 1999). Adolescents are already fairly media literate but are however persuaded by advertising strategies (Livingstone and Helsper, 2006), which is clearly seen in a clip of

the documentary “Two Angry Moms”<sup>6</sup> where a group of teenagers referring to the energy drink “Gatorade” as “the best of both worlds [water and fruit]”, for it provides electrolytes<sup>7</sup> and hence being the *healthier* choice.

What influences teens regarding their food choices is a multitude of factors that interact in a complex manner (Story et al., 2002). Taste, although important, loses relevance with age as social meanings gain prominence (Roper and La Niece, 2009). Healthy eating is mostly present in home meals with the family whereas unhealthy eating is clearly related to a peer environment (Fitzgerald et al., 2013; Stead et al., 2011; Contento et al., 2004). Peer pressure is one of the major influences in this age period and healthy eating is seen as being uncool, untrendy, *nerdy* but also something unreachable that only rich people do (Stead et al., 2011; Ludvigsen and Sharma, 2004). Since reference groups tend to be characterized by shared tastes and behaviors (Lindstrom, 2004; Brechwald & Prinstein, 2011), adolescents will indulge in unhealthy eating habits for it provides them with sense of belonging (Stead et al., 2011; Ludvigsen and Sharma, 2004).

There is a trend in society that being thin is ideal and attractive, which is portrayed by the fashion industry, and which is also very important in what concerns teen’s food choices. Girls, who are usually more susceptible to this influence, have unbalanced diets (Lattimore and Halford, 2003; Stead et al., 2011) driven by the complete exclusion of “bad” food (Stevenson et al., 2007; Stead et al., 2011) or skipping meals (Videon & Manning, 2003; Cavadini et al., 1999; Stead et al., 2011). More worrisome is the fact that these diets are seen as a short-term solution to become thinner (Stevenson et al., 2007) and hence being able to “fit in”.

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<sup>6</sup> Movement to change the food served in American schools. More information here: [angrymoms.org](http://angrymoms.org).

<sup>7</sup> Essential salts for the body that can be lost through sweat or other fluids. Replacing electrolytes is mainly useful when practicing intense sports activity.

Nutrition is not a main priority for adolescents (Neumark-Sztainer et al., 1999). Therefore, a more balanced point where both types of food (unhealthy and healthy) can be seen as complementary instead of mutually exclusive might make the adoption of healthier practices by younger people possible (Stevenson et al., 2007).

### Role Models

From young ages, children begin imitating others (Meltzoff, 1998). This influence is called Observational Learning (Bandura, 1989) and it implies that behaviors and new ways of thinking can be learned by observation, even if the “agent” – the role model that influences - never comes into direct contact with the “learner”. The literature reveals the main agents that influence teenagers (Moschis and Churchill, 1978) and in what aspects, as seen in **Table 1**.

**Table 1: Role Models for Teenagers by Category**

	Aspiration and Career	Food Choices	Sport Activities	Materialism and Socialization
<b>Parents</b>	✓ (King and Multon, 1996)	✓ at home (Basset et al., 2007)	<b>n/a</b>	✓ (Bush et al., 2001)
<b>Peers</b>	✓ (Lockwood and Kunda, 1997)	✓ Socially (Ludvigsen and Sharma, 2004)	✓ (Mackey and La Greca, 2007)	✓ (Chan, 2013)
<b>Celebrities</b>	<b>n/a</b>	<b>n/a</b>	✓ (Dix et al., 2010)	✓ (Bush et al., 2001)

Regarding Food choices, there is no evidence in the literature of celebrities’ influence on teenagers. TV celebrities, for example, constantly act as role models for television is still the main vehicle for adolescents to identify what is trending and “cool” (Lindstrom, 2004; Ludvigsen and Sharma, 2004; Stead et al., 2011).

Russel and Stern (2006) examined, in a sample of 16 to 84 year-olds, how the interaction of a TV Character with a product (food or object) in comedic TV Shows



influenced the consumer attitudes towards the respective product. They suggest that, given a positive relation between the character and a product, the deeper the involvement of the viewer with the character (Parasocial Attachment), the more likely is the viewer to reveal the same tastes as the Character's towards that same product. Since TV shows imply a deeper involvement of the viewer, the latter develops a deeper attachment to the respective TV Characters, making them a very powerful influence. However, this influence also depends on the perceived relevance and credibility of the role model (Lockwood and Kunda, 1997).

Food choices are an important aspect of peer acceptance for teens, however they associate negative feelings to healthy food (Stead et al., 2011; Ludvigsen and Sharma, 2004). Associating celebrities to healthy food can help in decreasing or completely replacing those negative feelings with positive ones.

The Portuguese-developed TV show *Nutriventures* is taking advantage of the impact TV Characters have over children, namely 6 to 10 year-olds, to influence their eating habits. The show's main characters have "healthy powers" that fight "bad eating". Episodes of the same show were recently bought from American Disney Channel and currently the company takes part on the "White House Convening on Food Market to Children"<sup>8</sup>. Moreover, given the current advertisement saturation, marketers are adopting new ways to attract young consumers<sup>9</sup>, such as associating their products to Characters in TV Shows.

More than ever, adolescents are watching TV<sup>10</sup> and also interacting with their favorite TV Shows through social media<sup>11</sup>. In fact, many studies have mentioned media not only

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<sup>8</sup> <http://www.nutri-ventures.com/pais/>

<sup>9</sup> <http://www.briefing.pt/publicidade/sony-foge-da-publicidade-tradicional.html>

<sup>10</sup> <http://www.nielsen.com/us/en/newswire/2009/breaking-teen-myths.html>

as a means of information but also a possible way to motivate and change behaviors (Story et al., 2002; Bird and Tapp, 2008; Lachance, 2003). In this sense, adolescents will likely change their behavior to conform to social norms imposed by celebrities themselves (Hunt, 2001). Thus the following Research Questions (RQ) is derived:

***RQ1.1: Can Celebrities influence teens' attitudes and intention towards healthy eating?***

Within the possible sphere of influence of the celebrity and based on the previous literature of how peers negatively influence teens in regards to healthy eating (Stead et al., 2011; Ludvigsen and Sharma, 2004), the following RQ is resultant:

***RQ1.2: Can Celebrities change the negative influence of peers over healthy eating?***

Teenagers aspire to become like older Role Models as they are symbols of independence and “cool” (Del Vecchio, 1997). Moreover, they relate to those of similar gender (Martin and Bush, 2000; Dix et al., 2010), which leads us to the following:

***RQ2: Do Celebrities affect teens differently according to the teen's gender?***

## **Research Design**

### **Legal and Ethical Issues**

All the ethical requirements for researching with children proposed by UNICEF (2002) were respected and the consents from the Portuguese Education authority, the schools and the parents were given. The parents and their children were informed about the purpose of this study and confidentiality was assured.

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<sup>11</sup> <http://abfdigital.blogspot.pt/2013/08/nova-ferramenta-da-nielsen-mede-relacao.html>

## **Population**

The population selected for this study was children in the 8<sup>th</sup> and 9<sup>th</sup> grades (13 and 14 years old), due to their understanding of consumption symbolism (John, 1999; Stead et al., 2011) and because this age range is the most sensitive to Pop Culture as their identities start being formed (Hood, 2006). At a younger age, the perception of healthy food is mainly focused on taste (Roper and La Niece, 2009).

## **Research Method**

The method that was used for this study was a structured questionnaire that was administered in-school for it allows the quantification of data, generalization of results and it is possible to have control over the environment in which the respondent will answer the survey (Malhotra, 2010). Furthermore, it was made clear to the respondents that the survey was anonymous and that there were no right or wrong answers, in order to reduce method bias (Podsakoff et al., 2003).

The sample was divided in two groups, the Experimental Group, that was exposed to the Celebrity Influence (61% of the sample), and the Control Group that was not exposed to it.

## **The Celebrity Influence and the Product**

The Celebrity Influence chosen for the study was the main character of the TV Show *I Love It* (Beatriz Madeira or Bia), one of the top shows watched by teens in the defined age range in Portugal and featured in many issues of the number one teen magazine in Portugal, *BRAVO*. *I Love It* is designed to fit teen's lifestyles (it has a constant presence in social media) and to portray modern teen problems<sup>12</sup>. It has a strong didactic

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<sup>12</sup>[www.zapping-tv.com/i-love-it-mostra-evolucao-narrativa-interativa-ficcao-juvenis/](http://www.zapping-tv.com/i-love-it-mostra-evolucao-narrativa-interativa-ficcao-juvenis/)

component, being healthy eating<sup>13</sup> and exercise one of the main emphasis. Also, the main character is around 20 years old (older than the population) making it suitable as a teenage role model (Del Vecchio, 1997).

The present study was adapted from Russel and Stern (2006) study where, after watching an episode of one of several TV Shows used in the analysis, adults were asked to name several products associated to the characters. Within the scope of this research, the TV Show, character and associated product were predetermined mainly due to time and logistical constraints.



**Figure 1: Still-frame of scene used in the study**



**Figure 2: Healthy snack used as the product in the study**

The Experimental Group was exposed to a 5-minute summarized episode<sup>14</sup> of the Show, which contained a scene of Bia and a friend eating one sliced banana and one sliced orange. In spite of additional scenes containing food in the same episode, such as Bia asking the same friend for a cereal bar, this study only focused on the first situation (**Figure 1**). All 6 teens in the Pre-tests knew the TV Show and referred Bia as someone who would eat the healthy snack, the fruit platter (**Figure 2**).

The episode was edited so that the viewing experience was close to a real situation: it included the opening and closing chapters and the original line of story; the scenes had approximately the same duration each. Similarly, to ensure the reality of the viewing

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<sup>13</sup> Adequate balance between energy and nutrition to support growth and metabolism. Involves choosing more high nutrient low fat foods and less junk food without keeping it completely absent, if necessary.

<sup>14</sup> Episode 41, Season 1, aired in October 31st, 2013. Available at:  
<https://drive.google.com/file/d/0B-Cp7yCBb3ppSjV5TzA1enRhNkk/edit?usp=sharing>

experience, the respondents were not asked to take special attention to any scene in particular or the episode in general. Instead, they were just informed that the video was going to be played.

Afterwards, the questionnaire was distributed and coded giving the same number to both questionnaires (the parent questionnaire that had been previously collected with the parent consent and the teen questionnaire that was being collected in the classroom), in order to later link each parent to the respective child. The groups were given a separate sheet with the pictures of the respective scene's still frames (**Figure 1**) and of the fruit platter (**Figure 2**). The Control group was only exposed to **Figure 2** with no association to a celebrity.

Pre-tests were conducted beforehand in order to evaluate the respondents' comprehension and the effectiveness of the questions, as well as the time taken to complete the final survey, and minor adjustments were done.

### **Sample**

From the 390 consent forms sent to parents, 130 were received in total from one public school and one private school in Lisbon, Portugal. Hence, the response rate was approximately 33%. However, some children were absent during data collection, whose parents' questionnaire were discarded from all the analysis where an association between the parent's and the teen's questionnaire was performed. After editing for acceptable responses, the total number of respondents was 109 (28% response rate).

The children had an average of 13 years old and the majority was female (61%). The respondents of the Private School accounted for 51%. The majority of parents had a bachelor or master degree (65%), were 45 to 54 years old (60%) and female (69%).

## Measures

The questionnaire to the parents assessed the respective socio-demographic data (education and occupation), the frequency of media consumption (in hours per week in weekdays and in weekends), and the parents' perception of the influence of TV in their children with 3 items such as "I think my son/daughter is influenced by the TV Shows s/he watches" (in a 5-point Likert scale ranging from completely disagree to Completely Agree).

The structured questionnaire administered to the teens was divided in four parts and evaluated four main relations: **Celebrity-Product**, **Teen-Product**, **Teen-Celebrity** and **Teen-Healthy Eating**.

**Part 1** of the survey included the socio-demographic data of the respondent (Gender and Age). **Part 2** assessed firstly whether the respondent recognized the TV Show with a dichotomous Yes/No variable and secondly how frequent s/he watched the show in a 4-point scale ("Always"; "3-4 times/ week"; "1-2 times per week"; "Never"). Following an explanation that "At times, characters are seen drinking or eating in TV Shows", an open-ended question was presented asking the respondent to recall and describe up to 3 situations in the episode in which the Characters were seen drinking or eating. This question was adapted from Russel and Stern (2006) and it was used mainly to assess whether the specific scene used in the study would be recalled before being mentioned. **Part 2** continued by asking whether the Character *Bia* was known to the respondent, and was followed by a 5-point Semantic Differential scale of a 3-item measure of **Attitude Towards the Character** (Like-Dislike; Pleasant-Unpleasant; Good-Bad), adapted from Russel and Stern (2006); of a 2-item measure for **Relevance** (Interesting-Uninteresting; Important to me-Unimportant to me) and **Credibility of the Character** (I believe her-I don't believe her; "Tells the truth-Tells lies), used in a similar study of

Lockwood and Kunda's (1997). Also in this part of Teenage-Celebrity realm of the questionnaire, two other variables were measured in a 5-point Likert Scale (1-Completely Disagree to 5-Completely Agree): the 5-item scale for **Influence of the Celebrity as a Role Model** was adapted from a similar study of Dix et al. (2010); and the 9-item scale for **Parasocial Attachment to Character** adapted from the same study of Russel and Stern (2006) – see **Appendix 1**.

**Part 3** began with a highlighted box asking the respondents to look at the side sheet containing the eating scene's still-frames and the image of the fruit platter used in the scene, followed by a 3-item scale of 5-point Semantic Differential to measure the teen's **Attitude Towards the Product** (Like-Dislike; Pleasant-Unpleasant; Good-Bad), and by a 3-item measuring the association and valence of the **Association of the Character to Healthy Food** with a 5-point Likert assessing the respondent's agreement to sentences such as "Healthy Food is associated to Bia"; "Bia likes Healthy Food" and "Bia's association to healthy food is positive".

**Part 4** (common in both Control and Experimental groups) started with the explanation that the part intended to understand the respondent's eating habits. All following variables were measured with a 5-point Likert scale (1-Completely Disagree to 5-Completely Agree): **Attitude towards Healthy Eating** measured with 3-item scale ("I like healthy food"; "I find healthy food unpleasant"; "Healthy food is not good"); the scale to measure **Susceptibility to Reference Group** was adapted from Bearden et al. (1989) into a 7-item scale (see **Appendix 1**). Finally, the respondent was asked to imagine what s/he wanted to eat in school (to force the higher independence of choice relative to "at-home") in the following 2 weeks (short-term effect). Using the same method used by Sangperm (2006), **Intention to Eat Healthily** was measured with a 3-item scale ("I plan to eat more fruit and vegetables in the next two weeks", "I will try to

eat more fruit and vegetables in the next two weeks” and “I intend to eat more fruit and vegetables for the next two weeks”.

## **Results**

The data input was reversed, when necessary, coded, and analyzed using the software IBM SPSS Statistics 21.

All Parents confirmed to have at least one TV at home, and 47% agree that TV influences their children. On the other hand, the results to whether TV shows are a good example are inconclusive (59% didn't agree nor disagree) since it is dependent of the show. Frequency of TV viewing in Weekdays and in Weekends differed significantly ( $p=.001$  and  $p=.26$ , respectively) between Schools: teens in the Private School tend to watch less TV overall. This is probably because Teens in this particular Private School have higher workload<sup>15</sup>. Moreover, a correlation was computed which inferred that TV viewing frequency has a positive association to the Influence of the Role Model ( $p\text{-value}=.044$ ,  $r^2=.348$ ).

A possible detrimental effect in the results is the fact that although 81% of the teens knew the show, 59% of those never watched it and 33% watched less than 2 times per week. Additionally, only 51% of those who watched the show knew the character Bia. During the viewing of the episode, it was apparent that this show can be a “hidden pleasure”, in the sense that teenage viewers don't assume they watch the show for they can be mocked by their peers. The reluctance to watch the show may be because younger children also watch it (Del Vecchio, 1997). In that sense, social desirability bias posed a major issue in this study.

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<sup>15</sup> The majority of the students in the Private School have, at least, 3 additional 45-minute slots per week of extracurricular activities provided by the same school.



The open-ended question, in which teens had to recall and describe up to 3 situations in the episode where characters were seen drinking or eating, did not provide conclusive results. Although 43% answered the question, 60% of those had a very detailed and/or edited description, which leads to believe that many teens changed their responses after receiving the side sheet. Therefore this measure doesn't satisfy the initial goal of assessing whether the specific scene would be recalled before being mentioned.

A factor analysis was conducted to the 5-item Role Model Influence adapted from Dix et al (2010), however, unlike the authors' one-dimensional factor, the results revealed two different dimensions that explained 63% of variability: **Role Model Influence for Others** (RM\_InfOth, mean of 3 items,  $\alpha=.81$ ) and **Role Model for Me** (RM\_InfMe, mean of 2 items,  $\alpha=.63$ ). The variable **Susceptibility to Reference Group** also underwent a factor analysis and the results revealed a one-dimensional factor with Cronbach's alpha of .856)

***RQ1.1: Can Celebrities influence teens' attitudes and intention towards healthy eating?***

According to Lockwood and Kunda (1997), the influence role models have on others is subjective to their perceived relevance and credibility. Therefore, correlation tests were done between the variables **Role Model Influence to Others** and **Me**, and **Role Model Relevance** (RM\_Relev, mean of the 2-item,  $\alpha=.85$ ) and **Role Model Credibility** (RM\_Cred, mean of the 2-item,  $\alpha=.56$ ).

**Table 2: Role Model Influence Correlations**

	<b>RM_Relev</b>	<b>RM_Cred</b>
<b>RM_InfOth</b>	$p=.157$	$p=.017; \eta^2=.412$
<b>RM_InfMe</b>	$p=.004; \eta^2=.481$	$p=.270$

Results reveal that **Relevance** of the role model has a medium correlation with **Role Model Influence to Me**, whereas **Credibility** has a weaker, though still medium, correlation with **Role Model Influence to Others**.

Moreover, three One Sample T-tests revealed that the Celebrity's **Relevance** and **Credibility** were positive (population mean was tested to be more than 3), since  $p\text{-value} < .05$ , and that the celebrity was positively associated to the **Healthy Product** ( $p = .000$ ). The confirmation that not only is the celebrity Bia considered relevant and credible but also that teens have the perception she is someone that eats healthily, assures the appropriateness of the character to be an influence for healthy food.

In order to analyze whether the revealed positive association of the celebrity exerted any influence over teen's views of the product, correlations were run to test if teen's **Attitude towards the Healthy Product** (ConsAttProd) was positively associated to **Attitude towards the Celebrity** (ConsAttCeleb) and teen's **Parasocial Attachment to the Celebrity** (ConsParaCeleb).

**Table 3: Correlation Teen-Product and Teen-Celebrity**

	ConsAttCeleb (a)	ConsParaCeleb (b)
ConsAttProd	$p = .016$ ; $r = .378$	$p = .441$

Results show that ConsAttProd (mean of all 3-items,  $\alpha = .92$ ) is positively correlated to ConsAttCeleb (mean of all 3-items,  $\alpha = .77$ ). However, ConsAttProd was not significantly correlated to ConsParaCeleb (mean of all 9-items,  $\alpha = .86$ ), which is not in accordance with the results from Russel and Brand (2006), whose findings reveal a stronger association between the consumer's attachment to the celebrity and the consumer's attitudes towards the product. These findings suggest that the teen might be influenced by the character's preferences of food.

Moreover, the control group was compared to the experimental group on three variables (**Attitude towards the healthy product**, **Attitude towards healthy eating** and **Intention to eat healthily** as a mean of all 3-items,  $\alpha=.85$ ) with an Independent Samples T-test, which indicated that there was no significant difference between groups (all p-values  $> .05$ ). These results reject the possibility of a significant difference in the teen's attitudes when exposed to the celebrity, despite the results obtained above, in **Table 5**. The fact that the TV Show was not frequently viewed, might have made the subjects less impacted by the same.

**RQ1.2:** *Can Celebrities change the negative influence of peers over healthy eating?*

In order to further analyze this RQ, it is necessary to firstly verify whether teenagers who are more susceptible to peer groups have lower **Attitude** and **Intention to Eat Healthily** (ConsAttHE and IntEH, respectively).

**Table 4: Correlations attitudes and intention to eat healthily**

	<b>Susceptibility to Ref. Group</b>	
<b>Overall</b>	<b>ConsAttHE</b>	$p=.000; r^2= -.358$
<b>Control Group</b>		$p=.000; r^2= -.533$
<b>Experimental Group</b>		$p=.040; r^2= -.253$
<b>Overall</b>	<b>IntEH</b>	$p=.486$
<b>Control Group</b>		$p=.836$
<b>Experimental Group</b>		$p=.750$

All correlations between ConsAttHE (mean of all 3 item,  $\alpha=.78$ ) and Susceptibility to Ref. Group are significant (p-values  $< .05$ ) and have a negative sign, indicating that, as expected, teens who are more susceptible to peer pressure will have a less positive attitude towards healthy eating. When exposed to a celebrity associated to healthy food (Experimental Group), the correlation decreases in strength by 30%, from  $-.533$  to  $-.253$ . That is, the “healthy food is cool” aspect introduced by the Celebrity (positive

feelings) might have a strong impact in teens, reducing the negative impact of reference groups in their preferences. On the other hand, the test found no significant correlation with Intention to eat healthily ( $p\text{-value} > .05$ ).

Additionally, an analysis was done to test the association between the **Influence of the Celebrity as a Role Model to Me** (RM\_InfMe) and **to Others** (RM\_InfOth), and the teen's **Susceptibility to the Reference Group**. The correlation test implies that both RM\_InfOth ( $p\text{-value} = .016$ ) and RM\_InfMe ( $p\text{-value} = .008$ ) are associated to the teen's susceptibility to Reference Groups, which suggests that a teen with a higher susceptibility to peer influence will also tend to be more influenced by the Celebrity.

Those who are more susceptible to their reference groups when making food choices will be more influenced by celebrities' own choices. Although the Celebrity might not change it completely, s/he can decrease the negative influence of peers over healthy eating.

***RQ2: Do Celebrities affect teens differently according to the teen's gender?***

The level of involvement a viewer has with a celebrity with whom s/he never came into direct contact is likely to be higher if both the viewer and the celebrity are the same gender. Since teens were exposed to a female character, **Parasocial Attachment** for female teens was expected to be higher than males'. An Independent Samples T-test results were significant for a confidence interval of 90% ( $p\text{-value} = .075 < .1$ ), thus meeting the expectations that female teens would feel a stronger connection with the Celebrity.

Further analysis was done regarding **Attitude towards the Healthy Product**, **Attitude towards Healthy Eating** and **Intention to eat healthily**, and the differences between genders. An Independent Samples T-test indicated that there was no significant difference between the groups (all  $p\text{-values} > .05$ ), which means that there is not enough

statistical evidence to say that male teens differ significantly from females in the variables tested.

## **Discussion**

Celebrities are usually approved or criticized for their actions and behaviors since they can be one of the main influencers for young people. However, there is little research on how they can have an influence in adolescents' views of food, namely healthy food.

The goal of this study was to understand the influence of a celebrity, who has no direct contact with the teenager, in the latter's attitudes and intentions to eat healthily. The celebrity in question was the main character Bia of a teen TV Show and the teens who participated in the study were exposed to a summarized episode where Bia ate a healthy snack (Product). Afterwards, four main relations were assessed: **Celebrity-Product, Teen-Product, Teen-Celebrity, Teen-Healthy Eating.**

***RQ1.1:** Can Celebrities influence teens' attitudes and intention towards healthy eating?*

The influence of the celebrity as a role model increases with the teen's TV viewing frequency and susceptibility to reference groups. The role model will have more power over teens who are more exposed to TV (the medium) and if those are also more easily influenced. Additionally, the exposed teen needs to identify the celebrity as credible (to be perceived as influential over others) and relevant (to have higher direct influence on the teen).

One conclusion of this study is that the teens will look at a celebrity to mimic their attitudes towards food. That is, if the celebrity is associated with healthy food, teens will most likely develop a higher positive attitude towards the same type of food. This condition is verified when the teen also has a positive attitude towards the celebrity.

The celebrity did not have an influence on teen's attitude and intention to eat healthily when compared to the control group (teens with no exposure to the celebrity). The knowledge of the show and character, which were low, can be seen as the main explanation for these results.

Nonetheless, the TV character used in this study strongly emphasizes the importance of a balanced diet (one where healthy and junk food can be complementary instead of mutually exclusive) and the example given by the TV character can have a mirror effect that helps the transfer of the character's attitudes and views onto teens.

***RQ1.2: Can Celebrities change the negative influence of peers over healthy eating?***

The results suggest that a teen with a higher susceptibility to peer influence will also tend to be more influenced by the celebrity, and since peer pressure is associated to eating less healthily, the celebrity role model plays a role in decreasing that influence. For those teens who were exposed to the celebrity eating a healthy snack (the experimental group), the peer's negative influence was much weaker than that of the teens in the control group. In the end, these results are an indicator that the celebrity acts as a stronger role model than peers, decreasing the latter's negative influence over food. Hence healthy eating became an "interest", became "cool" because the celebrity was associated to it. Ensuring *healthy celebrities* are popular among teens can help change the perception that healthy eating is untrendy and "uncool". This is especially true for those teens who are more susceptible to an outside influence.

***RQ2: Do Celebrities affect teens differently according to the teen's gender?***

Gender only had an effect on the teen's Parasocial Attachment to the celebrity, in which a deep involvement of the viewer is needed in order to develop a strong connection to the show and character. Even though teens in the study did not frequently view the

show, the gender of the celebrity still had a stronger impact on the same gender teens, in this case female. The fact that no other gender effect was found makes sense in this study, since Parasocial Attachment did not have an influence over teen's attitudes and intentions, as mentioned in **RQ1.1**.

In conclusion, this research shows how celebrities are able to reflect a positive image onto healthy food, making healthy eating “cool”. That is, celebrities can *take advantage* of adolescents who are more easily influenced in a “positive way” by transmitting healthier eating habits.

Often “being cool” in the perception of a teen can be related to rebellion and to the forbidden (Bird and Tapp, 2008; Del Vecchio, 1997). However, in the case of this study, introducing a role model for healthy eating was enough to reveal an interest from the teen and thus a positive indicator that “cool” does not always imply “rebellion”.

### **Limitations and Further Research**

The main limitation of this study was the frequency with which the teens watched the Show (92% watched less than 2 times per week or never watched), which may be because younger children also watch it (Del Vecchio, 1997) and therefore becomes a show “for younger children” in the minds of teens. Further research should be made with a more frequently watched teen TV Show, since stronger results and insights can arise due to the possibility of teen's higher attachment to the TV show and character.

This study assessed the immediate effects on attitudes and intentions after exposure of a celebrity. Since a TV show has the mean duration of one year<sup>16</sup>, future research should study the effects of a long-term exposure to the celebrity influence. In addition, attitudes and intention might not translate into behaviors, thus future research should study the

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<sup>16</sup> <http://quinto-canal.com/2013/06/dancin-days-entre-as-novelas-portuguesas-mais-longas-de-sempre/>

same influence on behaviors. More interestingly could be testing the effects of the celebrity influence on taste perception, since taste is also one of the main barriers to eating healthy food (Roper and La Niece, 2009).

Finally, this research focused in one medium (TV) and in one celebrity (fictional TV Character), future studies could tackle other mediums, such as social networks, and real celebrities instead of fictional. Social media is a big part of teens lives and all media can serve as a way to motivate and change attitudes and behaviors (Story et al., 2002; Bird and Tapp, 2008; Lachance, 2003).

## **Appendix 1**

### ***Influence of the Celebrity as a Role model (Dix et al, 2010)***

Bia provides a good model for me to follow;

Bia leads by example;

Bia sets a positive example for others to follow;

Bia exhibits the kind of work ethic and behavior that I try to imitate; and

Bia acts as a role model for me

### ***Parasocial Attachment to Character (Russel and Stern, 2006)***

I think Bia is like an old friend;

Bia makes me feel comfortable, as if I am with friends;

Bia seems to understand the things I want to know;

I find Bia to be attractive;

I would like to meet Bia in person;

I feel sorry when Bia makes a mistake;

I like to compare my ideas with what Bia says;

When I'm watching the program and Bia is on, I feel as if I am part of the group;

I miss seeing Bia when her show is not on.

### ***Susceptibility to Reference Group (Bearden et al, 1989)***

I rarely buy new foods until I am sure my friends approve of them.

It is important that others like the food I buy.

When buying food, I generally purchase food I think others will approve of.

If I want to be like someone, I often try to eat the same food as they eat.

I often identify with other people by eating the same food as they eat.



***Susceptibility to Reference Group (Bearden et al, 1989) – cont.***

If I don't know a type of food, I often ask my friends about the product.

To make sure I buy the right food, I often observe what others are buying and eating.

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## References

- Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development*. Vol. 6. *Six theories of child development* (pp. 1-60). Greenwich, CT: JAI Press.
- Basset, R.; Chapman, G. and Beagan, B. (2008). "Autonomy and control: The co-construction of adolescent food choice". *Appetite*, 50 (2008): 325-332
- Bearden, W.; Netemeyer, R.; and Teel, J. (1989). "Measurement of Consumer Susceptibility to Interpersonal Influence", *Journal of Consumer Research*, Vol. 15, No. 4, Mar., 1989, Page 473 of 473-481
- Bird, S. and Tapp, S. (2008). "Social marketing and the meaning of cool", *Social Marketing Quarterly*, Vol. 14 No. 1, pp. 18-29.
- Brechwald, Whitney A. and Prinstein, Mitchell J. (2011). "Beyond Homophily: A Decade of Advances in Understanding Peer Influence Processes", *Journal of Research on Adolescence*, Volume 21, Issue 1, pages 166–179, March 2011
- Bruening, M.; Eisenberg, M.; MacLehose, R.; Nannery, Marilyn S.; and Story, M. (2012). Relationship between Adolescents' and Their Friends' Eating Behaviors: Breakfast, Fruit, Vegetable, Whole-Grain, and Dairy Intake, *Journal of the Academy of Nutrition and Dietetics*, October 2012, Volume 112, Number 10
- Bush, A.; Martin, C. and Clark, P. "The Effect of Role Model Influence on Adolescents' Materialism and Marketplace Knowledge". *Journal of Marketing Theory and Practice*. Vol. 9, No. 4 (Fall, 2001), pp. 27-36
- Cavadini, C.; Decarli, B.; Dirren, H.; Cauderay, M.; Narring, F.; Michaud, P. (1999). "Assessment of adolescent food habits in Switzerland", *Appetite*, 32(1), 1999, pp. 97-106
- Chan, Kara. (2013). "Development of materialistic values among children and adolescents". *Young Consumers*, VOL. 14 NO. 3 2013, pp. 244-257,
- Contento, Isobel R.; Williams, Sunyna S.; Michela, John L.; and Franklin, Amie B. (2004). "Understanding the food choice process of adolescents in the context of family and friends", *Journal of Adolescent Health*, 38, pp. 575–582
- Del Vecchio, Gene. (1997). *Creating Ever-cool: A Marketer's Guide to a Kid's Heart*. Pelican Publishing.
- Direcção Geral da Saúde (DGS). (2013). "Portugal Alimentação Saudável em números – 2013". DGS, Outubro 2013
- Dix, S.; Phau, I.; Pougnet, S. (2010). "“Bend it like Beckham”: the influence of sports celebrities on young adult consumers", *Young Consumers*. Vol. 11 Iss: 1, pp.36 – 46
- Feldman, Robert S. (2008). *Development Across the Life Span*. Pearson Education, 5th Edition
- Fitzgerald, A.; Heary, C.; Kelly, C.; Nixon, C.; Shevlin, M. (2013). "Self-efficacy for healthy eating and peer support for unhealthy eating are associated with adolescents' food intake patterns", *Appetite*, 63: 48–58"
- Hunt, J. (2001). "The Impact of Celebrity Endorsers on Consumers' Product Evaluations: A Symbolic Meaning Approach". University of North Carolina at Wilmington
- Lachance, M.J.; Beaudoin, P. and Robitaille, J. (2003), "Adolescents' brand sensitivity in apparel: influence of three socialization agents". *International Journal of Consumer Psychology*. 8(1): 47-58.
- Lattimore, Paul J.; and Halford, Jason C.; (2003), "Adolescence and the diet–dieting disparity: Healthy food choice or risky health behaviour?", *British Journal of Health Psychology*. 8, 451–463
- Lindstrom, Martin. (2004). *Brand Child: Remarkable Insights into the Minds of Today's Global Kids & Their Relationships with Brands with Patricia B Seybold*. Kogan Page US, November 2004

- Livingstone, S. and E. J. Helsper (2006). "Does advertising literacy mediate the effects of advertising on children? A critical examination of two linked research literatures in relation to obesity and food choice." *Journal of Communication* 56: 560-584.
- Lockwood, Penelope; and Kunda, Ziva; (1997), "Superstars and Me: Predicting the Impact of Role Models on the Self", *Journal of Personality and Social Psychology*. Vol. 73, No. 1, 91-103.
- Ludvigsen, A. and Sharma, N. (2004). *Burger boy and sporty girl: children and young people's attitudes towards food in school*. Barking: Barnardo's, 2004.
- Mackey, E. and La Greca, A., (2007). "Adolescents' Eating, Exercise, and Weight Control Behaviors: Does Peer Crowd Affiliation Play a Role?", *Journal of Pediatric Psychology*. 32(1) pp. 13–23.
- Malhotra, N. (2010). *Marketing Research – An Applied Orientation*, Pearson.
- Martin, C.A. and Bush, A.J. (2000), "Do role models influence teenagers' purchase intentions and behavior?", *Journal of Consumer Marketing*, Vol. 17 No. 5, pp. 441-456.
- Meltzoff, Andrew N.; (1988), "Imitation of Televised Models by Infants", *Child Dev.* October; 59(5): 1221–1229.
- Moschis, GP; and Churchill, GA, (1978) "Consumer Socialization: A Theoretical and Empirical Analysis", *Journal of Marketing Research* Vol. XV (November 1978), 599-609
- Neumark-Sztainer, D; Story, M; Perry, C; Casey, MA; (1999); "Factors Influencing Food Choices of Adolescents: Findings from Focus-Group Discussions with Adolescents", *Journal of the American Dietetic Association*. Volume 99, Issue 8, August 1999, Pages 929–937
- Piaget, Jean and Inhelder, Barbel. (2000). *The psychology of the child*. New York: Basic Books
- Podsakoff, M., MacKenzie, S., and Lee, J. (2003). "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies". *Journal of Applied Psychology*. Vol. 88, No. 5, 879–903
- Roper, Stuart; and La Niece, Caroline; (2009), "The importance of brands in the lunch-box choices of low-income British school children", *J. Consumer Behav.* 8: 84–99 (2009)
- Russell, Cristel Antonia; and Stern, Barbara B.; (2006), "Consumers, characters and Products", *Journal of Advertising*, vol. 35, no. 1 (Spring 2006), pp. 7-2
- Sangperm, 2006, "Predicting adolescent healthy eating behavior using attitude, subjective norms, intention and self-schema", Mahidol University, ISBN 974-047729-1
- Stead M, McDermott L, Mackintosh AM, Adamson A. (2011), "Why healthy eating is bad for young people's health: identity, belonging and food.", *Soc Sci Med*. Apr;72(7):1131-9
- Stevenson, C; Doherty, G; Barnett, J; Muldoon, Orla T.; Trewa, K; (2007); "Adolescents' views of food and eating: Identifying barriers to healthy eating", *Journal of Adolescence* 30 (2007) 417–434
- Story, M.; Neumark-Sztainer, D.; French, S., (2002) "Individual and Environmental influences on adolescent eating behaviors". *Journal of the American Dietetic Association*. 102(3) Supplement, March, Pages S40–S51
- UNICEF Evaluation Office. (2002). *Children Participating in Research, Monitoring and Evaluation (M&E) – Ethics and Your Responsibilities as a Manager*. Evaluation Technical Notes, N° 1, 1-11. New York: UNICEF.
- Videon, TM; Manning, CK. (2003). "Influences on adolescent eating patterns: the importance of family meals", *J Adolesc Health*. May; 32(5):365-73.